

CLAIMS

1. An electrorheological fluid device, characterized by comprising:
 - 5 a container capable of containing fluid internally;
 - a pair of electrodes having flexibility, disposed in said container so as to oppose each other; and
 - anelectrorheological fluid contained in said container and disposed between said electrodes, and having an elastic
 - 10 property changeable in accordance with an electric field generated between said electrodes.
2. The electrorheological fluid device according to claim 1, characterized in that said container is constituted by
15 flexible materials.
3. The electrorheological fluid device according to claim 1, characterized in that said pair of electrodes comprises dot-form, sheet-form, or strip-form opposed electrodes.
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4. The electrorheological fluid device according to claim 1, characterized in that said pair of electrodes comprises one shaft-form electrode and another electrode disposed on peripheral border so as to oppose each other.
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5. The electrorheological fluid device according to claim 1, characterized in that said pair of electrodes extend in the direction of extending said container.
- 30 6. The electrorheological fluid device according to claim 1, characterized in that at least two pairs of said pair of

electrodes are formed, wherein an electric field generated by one pair of electrodes and an electric field generated by the other pair of electrodes are crossed.

5 7. An electrorheological fluid device, characterized by comprising:

a plurality of electrorheological fluid elements;

said electrorheological fluid element having:

a container capable of containing fluid internally;

10 a pair of electrodes having flexibility, disposed in said container so as to oppose each other; and

an electrorheological fluid having an elastic property changeable in accordance with an electric field generated between said electrodes, said electrorheological fluid being
15 contained in said container and disposed between said electrodes.

8. The electrorheological fluid device according to claim 7, characterized in that said electrorheological fluid devices
20 are arranged to be a substantially flat-plate form.

9. The electrorheological fluid device according to claim 7, characterized in that said plurality of arranged electrorheological fluid devices are driven by a passive matrix
25 mode or an active matrix mode.

10. An electronic apparatus, characterized by comprising:
an apparatus body having flexibility;
a container capable of containing fluid internally,
30 attached to said apparatus body;
a pair of electrodes having flexibility, disposed in

said container so as to oppose each other; and

anelectrorheological fluid contained in said container
and disposed between said electrodes, and having an elastic
property changeable in accordance with an electric field
5 generated between said electrodes.

11. The electronic apparatus according to claim 10,
characterized in that said container is constituted by flexible
materials.

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12. The electronic apparatus according to claim 10,
characterized in that said container is formed in a portion
contacting a human body.

15 13. The electronic apparatus according to claim 10,
characterized in that said apparatus body is provided with
an image display section.

14. The electronic apparatus according to claim 10,
20 characterized in that an organic transistor is provided as
a control device.

15. The electronic apparatus according to claim 10,
characterized in that said image display section is provided
25 with an organic transistor as a control device.

16. An electronic apparatus, characterized by comprising:
an apparatus body;
a container having flexibility and capable of containing
30 fluid internally, attached to said apparatus body;
at least a pair of electrodes having flexibility,

disposed in said container so as to oppose each other; and
 anelectrorheological fluid contained in said container
and disposed between said electrodes, and having an elastic
property changeable in accordance with an electric field
5 generated between said electrodes.

17. The electronic apparatus according to claim 16,
characterized in that said container is provided on a path
formed in a part of said apparatus body, and performs an
10 open/close operation of said path in accordance with a property
change of said electronic electrorheological fluid contained
in said container.

18. The electronic apparatus according to claim 16,
15 characterized in that said container is formed at an open/close
section of said apparatus body, and performs an open/close
operation of said open/close section in accordance with a
property change of said electronic electrorheological fluid
contained in said container.

20 19. An electronic apparatus, characterized by comprising:
 a sheet-form body having flexibility;
 a container capable of containing fluid internally,
attached to said sheet-form body;
25 at least a pair of electrodes having flexibility,
disposed in said container so as to oppose each other; and
 anelectrorheological fluid contained in said container
and disposed between said electrodes, and having an elastic
property changeable in accordance with an electric field
30 generated between said electrodes.

20. The electronic apparatus according to claim 19, characterized in that said container extends in one direction on said sheet-form body or in said sheet-form body.

5 21. The electronic apparatus according to claim 19, characterized in that said sheet-form body is able to be kept in a rolled-shape.

22. The electronic apparatus according to claim 19,
10 characterized in that said sheet-form body is able to be kept in a folded-shape.

23. The electronic apparatus according to claim 19,
characterized in that said container is constituted by flexible
15 materials.